

CRFL



PC09

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/936,133A .1

DATE: 05/23/2002

TIME: 16:05:17

Input Set : A:\Sch1821.app

Output Set: N:\CRF3\05232002\I936133A.raw

ENTERED

3 <110> APPLICANT: THIERAUCH, KARL-HEINZ
4 GLIENKE, JENS
5 HINZMANN, BERND
6 PILARSKY, CHRISTIAN
8 <120> TITLE OF INVENTION: HUMAN NUCLEIC ACID SEQUENCES AND PROTEIN SEQUENCES
9 FROM ENDOTHELIAL CELLS
11 <130> FILE REFERENCE: SCH 1821
13 <140> CURRENT APPLICATION NUMBER: 09/936,133A
14 <141> CURRENT FILING DATE: 2001-09-07
16 <150> PRIOR APPLICATION NUMBER: DE 199 11 684.9
17 <151> PRIOR FILING DATE: 1999-03-09
19 <150> PRIOR APPLICATION NUMBER: DE 199 48 679.4
20 <151> PRIOR FILING DATE: 1999-10-01
22 <150> PRIOR APPLICATION NUMBER: PCT/EP00/02005
23 <151> PRIOR FILING DATE: 2000-03-08
25 <160> NUMBER OF SEQ ID NOS: 60
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 1835
29 <212> TYPE: DNA
30 <213> ORGANISM: Homo sapiens
32 <400> SEQUENCE: 1
33 ttttacagtt ttccttttct tcagagttta ttttgaattt tcatttttgg ataaccaagc 60
34 agctctttta gaagaatgca cagaagagtc attctggcac ttttgatag tacataagat 120
35 tttctttttt ttttttaa tttttttaat agtcacattc agctcgottg ctcaaaccag 180
36 actcccatat tgggtgagca agatgagccc ataggattcc agagttaata cgtaaccgta 240
37 tatacaaaca gccaaaaaac cataatggtg ccacagggat ggagcaggga agggcatctc 300
38 taacgtgtcc tctagtctat ctctgctaaa cagaaccac gttacacatg ataactagag 360
39 agcacactgt gttgaaacga ggatgctgac cccaaatggc acttggcagc atgcagttta 420
40 aagcaaaaga gacatccttt aataactgta taaaatccag gcagttccat taaaggggtt 480
41 aagaaaaaca acaacaaca aaagcgaggg actgtctgtt gtcactgtca aaaaggcact 540
42 tggagttaat gggaccagga ttggaggact cttagctgat acagatttca gtacgatttc 600
43 attaaaaggc ttggatgta agagaggaca ctcagcgtt cctgaaggga gacgtgaga 660
44 tggaccgctg agaagcgga cagatgaaca caaaggaatc aaatctttac aaccaaattg 720
45 catttaagcg acaacaaaaa aaggcaaac ccaaacgca acctaaccac agcaaaatct 780
46 aagcaaaatc agacaacgaa gcagcgatgc atagctttcc tttgagagaa cgcatacctt 840
47 gagacgtac gtgccaacct aagttctcaa cgacagcttc acagtaggat tattgtgata 900
48 aaaatgactc aagcgatgca aaaagtttca tctgttccca gaatccgagg gagaactgag 960
49 gtgatcgta gagcatagcg acatcacgtg cggttttctta atgtccctgg tggcggatac 1020
50 gccgagtcct cggaaggaca tctggacacc actttcagcc acctccttgc aggggcgaca 1080
51 tccgccaag tcctctttta ttccgagtaa taactttaat tcctttctaa catttacacg 1140
52 gcaaacagga atgcagtaaa cgtccacgtc cgtcccacgg ctgggctgcc gttccgtttc 1200
53 ctccacgaac gggtagcgc ttccatgaga aaggatattt ggcaatttta tattccacag 1260
54 tcaggtgggt ctgcgatagc tcatttaatg ttaaaccgca tcaggggcct ctctcccgt 1320

RAW SEQUENCE LISTING

DATE: 05/23/2002

PATENT APPLICATION: US/09/936,133A

TIME: 16:05:17

Input Set : A:\Sch1821.app

Output Set: N:\CRF3\05232002\I936133A.raw

```
55 ttctgccagg ggtttttctt gtcttctcct tggcgagctc gtgggcagat cttctctggt 1380
56 gggggctggc tgctggctcc gagggggcat ccgcagtcgc tctggctgct tcctcctgca 1440
57 ggctgggcag ctggccacca cttctccgac tcgacccctc caacaagcat cgcagggcac 1500
58 tgtcctcggg ggtacagacc gtggtccac attcgctacc actctgttcc acgtcatcca 1560
59 ggtacacgag ctgctgttag gccgtgctgt ctggggctcg aggtctcttc tgctggtgct 1620
60 cttggacggg cgggtagttc tgctgcagag acaaagcatc tccccctccc ttccgggctg 1680
61 attttggttc attcatatct acgccagagt ccaaactggc atcattactt ccgttccttc 1740
62 cagctctttg gagaatcaat gtatgaatgt ctaacctgac cgttggacct gccatccaag 1800
63 gagacgaacc acgcccgggg gtgcggaagc ggcct 1835
66 <210> SEQ ID NO: 2
67 <211> LENGTH: 581
68 <212> TYPE: DNA
69 <213> ORGANISM: Homo sapiens
71 <400> SEQUENCE: 2
72 gttctagatt gttttattca gtaattagct ctttaagacc ctggggcctg tgctacccag 60
73 acactaacia cagtctctat ccagttgctg gttctgggtg acgtgatctc cccatcatga 120
74 tcaacttact tctgtggcc cattagggaa gtggtgacct cgggagctat ttgctgttg 180
75 agtgcacaca cctggaaaca tactgctctc atttttcat ccacatcagt gagaaatgag 240
76 tggcccgtaa gcaagatata actatgcaat catgcaacaa agctgcctaa taacatttca 300
77 tttattacag gactaaaagt tcattattgt ttgtaaagga tgaattcata acctctgcag 360
78 agttatagtt catacacagt tgatttccat ttataaaggc agaaagtcct tgttttctct 420
79 aaatgtcaag ctttgactga aaactcccgt ttttccagtc actggagtgt gtgcgtatga 480
80 aagaaaatct ttagcaatta gatgggagag aagggaata gtacttgaaa ttagggccct 540
81 cacctcccca tgacatcctc catgagcctc ctgatgtagt g 581
83 <210> SEQ ID NO: 3
84 <211> LENGTH: 516
85 <212> TYPE: DNA
86 <213> ORGANISM: Homo sapiens
88 <400> SEQUENCE: 3
89 tagagatgtt ggttgatgac ccccgggac tggagcagat gaatgaagag tctctggaag 60
90 tcagcccaga catgtgcac tacatcacag aggacatgct catgtcgcgg aacctgaatg 120
91 gacactctgg gttgattgtg aaagaaattg ggtcttccac ctgagctctc tcagaaacag 180
92 ttgttaagct tcgtggccag agtactgatt ctcttccaca gactatatgt cggaaaccaa 240
93 agacctccac tgatcgacac agcttgagcc tcgatgacat cagactttac cagaaagact 300
94 tctgcgcgat tgcaggtctg tgtcaggaca ctgctcagag ttacaccttt ggatgtggcc 360
95 atgaactgga tgaggaaggc ctctattgca acagttgctt ggcccagcag tgcataca 420
96 tccaagatgc ttttccagtc aaaagaacca gcaaatactt ttctctggat ctactcatg 480
97 atgaagttcc agagtttgtt gtgtaaagtc cgtctg 516
99 <210> SEQ ID NO: 4
100 <211> LENGTH: 1099
101 <212> TYPE: DNA
102 <213> ORGANISM: Homo sapiens
104 <400> SEQUENCE: 4
105 ccacaaacac aggggccctg aaacacgcca gcctctcctc tgtggtcagc ttggcccagt 60
106 cctgctcact ggatcacagc ccattgtagg tggggcatgg tggggatcag ggcccctggc 120
107 ccacggggag gtagaagaag acctggtccg tgtaagggtc tgagaagggt ccctgggtcg 180
108 ggggtgcgct ttggccttgc cgtgccctca tccccgggt gaggcagcga cacagcaggt 240
109 gcaccaactc cagcaggtta agcaccagg agatgagtc aaccaccaac atgaagatga 300
110 tgaagatggt cttctccgtg gggcgagaga caaagcagtc cagcaggtag gggcaggggt 360
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/936,133A

DATE: 05/23/2002

TIME: 16:05:17

Input Set : A:\Sch1821.app

Output Set: N:\CRF3\05232002\I936133A.raw

```
111 ctcgctggca cacaacacg ggctccatgg tccagccgta caggcgccac tggccataga 420
112 ggaagcctgc ctctagcaca ctcttgacga gcacactggc gacatagggtg cccatcagtg 480
113 ctccgcggat gcgcaggcga ccatcttctg ccaccgagat cttggccatc tgacgctcta 540
114 cgcccgccag cgcgcgctcc acctgtgggt ccttggccgg cagtgcgccg agctccccct 600
115 ccttctgccc cagccgctct tctgcgcgag acaggtaa at gacatggccc aggtagacca 660
116 ggggtgggtgt gctgacgaag aggaactgca gcaccagta gcggatgtgg gagatgggga 720
117 aggcctggtc atagcagacg ttggtgcagc ctggctgggc cgtgttacac tcgaaatctg 780
118 actgctcgtc accccacact gactcgccgg ccaggcccag gatgaggatg cggaaatga 840
119 agagcaccgt cagccagatc ttaccaccca cggtcgagtgt ctcctggacc tggccagca 900
120 acttctccac gaagccccag tcaccatgg ctcccgggcc tccgtcggca aggagacaga 960
121 gcacgtcagt gtgtcagcat ggcatccttc tcgttcgccc agcaacaagc ctgcaggag 1020
122 gtctgccacg ccggttctac cgcctgctg ccggcgggcc cagggtggagg tggggacgat 1080
123 ggccggagtgt acgcccgcg                                     1099
126 <210> SEQ ID NO: 5
127 <211> LENGTH: 1015
128 <212> TYPE: DNA
129 <213> ORGANISM: Homo sapiens
131 <400> SEQUENCE: 5
132 gaggataggg agcctggggt caggagtgtg ggagacacag cgagactctg tctccaaaaa 60
133 aaaaagtgtt ttttgaaaat gttgaggttg aaatgatggg aaccaacatt ctttggattt 120
134 agtggggagc ataatagcaa acacccccctt ggttcgcaca tgtacaggaa tgggacccag 180
135 ttggggcaca gccatggact tccccgcctt ggaatgtgtg gtgcaaagtg gggccagggc 240
136 ccagacccaa gaggagaggg tggtcgcag acaccccggt atgtcagcat ccccgacct 300
137 gccttctggc ggcacctccc ggggtgctgt ttgagtcagc aggcattggg tgagagcctg 360
138 gtatatgtct ggaacagggt gcaggggcca agcgttcctc cttcagcctt gacttggggc 420
139 atgcaccccc tctcccccaa acacaaacaa gcacttctcc agtatggtgc caggacaggt 480
140 gtcccttcag tctctgtggt atgacctcaa gtccacttg ggccttcag cccagcctgt 540
141 gttgtaacct ctgcgtcttc aagaccacac ctggaagatt cttcttcctt ttgaaggaga 600
142 atcatcattg ttgctttatc acttctaaga cattttgtac ggcacggaca agttaaacag 660
143 aatgtgcttc cctccctggg gtctcacacg ctcccacgag aatgccacag gggccgtgca 720
144 ctgggcaggc ttctctgtag aacccagggt gcttcggccc agaccacagc gtcttgcctt 780
145 gacctaagag caggaggtcc cgaacttctg cattcacaga ccacctccac aattgttata 840
146 accaaaggcc tctgttctgt ttatttact taaatcaaca tgctattttg ttttactca 900
147 cttctgactt tagcctcgtg ctgagccgtg tatccatgca gtcattgtca cgtgctagtt 960
148 acgtttttct tcttacacat gaaaataaat gcataagtgt tagaagaaaa aaaaaa 1015
150 <210> SEQ ID NO: 6
151 <211> LENGTH: 2313
152 <212> TYPE: DNA
153 <213> ORGANISM: Homo sapiens
155 <400> SEQUENCE: 6
156 ccagagcagg cctgggtggt agcagggagc gtgcaccgga cggcgggatc gagcaaatgg 60
157 gtctggccat ggagcacgga ggttcctacg ctccggcggg gggcagctct cggggctgct 120
158 ggtattacct gcgtacttct tctctctctg tctccctcat ccaattcctc atcatcctgg 180
159 ggctcgtgct cttcatggtc tatggcaacg tgcacgtgag cacagagtcc aacctgcagg 240
160 ccaccgagcg ccgagccgag ggctataaca gtcagctcct agggctcagc gcctcccagt 300
161 ccaacttgac caaggagctc aacttcacca cccgcgcca ggatgccatc atgcagatgt 360
162 ggctgaatgc tcgcccgcag ctggaccgca tcaatgccag cttccgccag tgccagggtg 420
163 accgggtcat ctacacgaac aatcagaggt acatggctgc catcatcttg agtgagaagc 480
164 aatgcagaga tcaattcaag gacatgaaca agagctgcga tgccttgctc ttcattgctga 540
```

RAW SEQUENCE LISTING

DATE: 05/23/2002

PATENT APPLICATION: US/09/936,133A

TIME: 16:05:17

Input Set : A:\Sch1821.app

Output Set: N:\CRF3\05232002\I936133A.raw

```
165 atcagaaggt gaagacgctg gaggtggaga tagccaagga gaagaccatt tgcactaagg 600
166 ataaggaaag cgtgctgctg aacaaacgcg tggcggagga acagctggtt gaatgcgtga 660
167 aaaccgcgga gctgcagcac caagagcgcc actggccaag gagcaactgc aaaaggtgca 720
168 agccctctgc ctgcccctgg acaaggacaa gtttgagatg gaccttcgta acctgtggag 780
169 ggactccatt atcccacgca gcctggacaa cctgggttac aacctctacc atcccctggg 840
170 ctcggaattg gcctccatcc gcagagcctg cgaccacatg cccagcctca tgagctccaa 900
171 ggtggaggag ctggcccgga gcctccgggc ggatatcgaa cgcgtggccc gcgagaactc 960
172 agacctccaa cgccagaagc tggaagccca gcagggcctg cgggccagtc aggaggcgaa 1020
173 acagaaggtg gagaaggagg ctcaggcccg ggaggccaag ctccaagctg aatgctcccg 1080
174 gcagaccagc ctacgctgag aggagaaggc ggtgctgcgg aaggaacgag acaacctggc 1140
175 caaggagctg gaagagaaga agaggaggc ggagcagctc aggatggagc tggccatcag 1200
176 aaactcagcc ctggacacct gcacaaagc caagtcgcag ccgatgatgc cagtgtcaag 1260
177 gcccatgggc cctgtcccca acccccagcc catcgaccca gctagcctgg aggagttaa 1320
178 gaggaagatc ctggagtccc agaggcccc tgcaggcatc cctgtagccc catccagtgg 1380
179 ctgaggaggc tccaggcctg aggaccaagg gatggccga ctcggcggtt tgcggaggat 1440
180 gcagggatat gctcacagcg cccgacacaa cccctcccg ccgccccaa ccaccaggg 1500
181 ccaccatcag acaactccct gcattgcaaac ccctagtacc ctctcacacc cgcaccgcg 1560
182 cctcacgata cctcaccag agcacaggc cgcggagatg acgtcacgca agcaacggcg 1620
183 ctgacgtcac atataccgt ggtgatggcg tcacgtggcc atgtagacgt cacgaagaga 1680
184 tatagcgatg gcgctgctga gatgcagcac gtcgcacaca gacatgggga acttgcatg 1740
185 acgtcacacc gagatgcagc aacgacgtca cgggccatgt cgacgtcaca catattaatg 1800
186 tcacacagac gggcgatgg catcacacag acggtgatga tgtcacacac agacacagt 1860
187 acaacacaca ccatgacaac gacacctata gatatggcac caacatcaca tgcacgcatg 1920
188 ccttttcaca cacactttct acccaattct cacctagtgt cacgttcccc cgacctggc 1980
189 acacgggcca aggtacccac aggatcccat cccctcccg acagccctgg gcccagcac 2040
190 ctcccctcct ccagcttctt ggctcccg ccacttctc acccccagtc cctggaccog 2100
191 gaggtgagaa caggaagcca ttcacctcg ctcttgagc gtgagtgtt ccaggacccc 2160
192 ctcgggggcc tgagccgggg gtgagggtca cctgttgctg ggaggggagc cactccttct 2220
193 cccccaactc ccagccctgc ctgtggcccg ttgaaatgtt ggtggcactt aataaatatt 2280
194 agtaaatcct taaaaaaaaa aaaaaaaaaa aaa 2313
```

196 <210> SEQ ID NO: 7

197 <211> LENGTH: 389

198 <212> TYPE: DNA

199 <213> ORGANISM: Homo sapiens

201 <400> SEQUENCE: 7

```
202 gccaaaaaga tggcttcaaa agtaagaatg aaacatttga tccattcagc tttaggctat 60
203 gccactggat tcatgtctag aaaagatagg ataatttctg taaagaaatg aagaccttgc 120
204 tattctaaaa tcagatcctt acagatccag atttcaggaa acaaatacat aggggactaa 180
205 ctttccttgt tcagattagt ttttctcctt tgcacccagc tatataatat gaggaagtat 240
206 tgacttttta aaagtgtttt agttttccat ttctttgata tgaaaagtaa tatttcggga 300
207 gaaccctgag ctattaataa tctatgtggc tagtgcgat atatttgtct gaatttgttc 360
208 tccttttgtg gtgtccagtg ggtaacatc 389
```

210 <210> SEQ ID NO: 8

211 <211> LENGTH: 157

212 <212> TYPE: DNA

213 <213> ORGANISM: Homo sapiens

215 <400> SEQUENCE: 8

```
216 tgctttaaac agctgtgtca aaaactgaca tcagagagta aattgaattt ggtttttag 60
217 gaagcaggaa gcaagccac tcaaacgtga aatttggcat gagggatcca gtaactttct 120
```

RAW SEQUENCE LISTING

DATE: 05/23/2002

PATENT APPLICATION: US/09/936,133A

TIME: 16:05:17

Input Set : A:\Sch1821.app

Output Set: N:\CRF3\05232002\I936133A.raw

```
218 cctcaatctg tgaactatat gtgagtttga tattttg 157
220 <210> SEQ ID NO: 9
221 <211> LENGTH: 561
222 <212> TYPE: DNA
223 <213> ORGANISM: Homo sapiens
225 <400> SEQUENCE: 9
226 aatagtcaaa acataaacia aagctaatta actggcactg ttgtcacctg agactaagtg 60
227 gatgttggtg gctgacatac aggctcagcc agcagagaaa gaattctgaa ttccccttgc 120
228 tgaactgaac tattctgtta catatggttg acaaactctgt gtgttatttc ttttctacct 180
229 accatatttta aatttatgag tatcaaccga ggacatagtc aaaccttcga tgatgaacat 240
230 tcctgatttt ttgcctgatt aatctctgtt gagctctact tgtggtcatt caagatttta 300
231 tgatgttgaa aggaaaagtg aatatgacct taaaaaattg tattttgggt gatgatagtc 360
232 tcaccactat aaaactgtca attattgcct aatgtttaaag atatccatca ttgtgattaa 420
233 ttaaacctat aatgagtatt cttaatggag aattcttaat ggatggatta tcccctgata 480
234 ttttctttta aatttctctg cacacacagg acttctcatt ttccaataaa tgggtgtact 540
235 ctgccccaat ttctaggaaa a 561
237 <210> SEQ ID NO: 10
238 <211> LENGTH: 1508
239 <212> TYPE: DNA
240 <213> ORGANISM: Homo sapiens
242 <400> SEQUENCE: 10
243 cacaaacacg agagactcca cggctctgct gagcacgcgc agcctcctag gctccagcac 60
244 tcgcaggtcc atttctctgc acgagcctct ctgtccagat ccataagcac ggtcagctca 120
245 gggtcgcgga gcagtaacgag gacaagtacc agcagcagct cctctgaaca gagactgcta 180
246 ggatcatcct tctcctccgg gcctgttgcct gatggcataa tccgggtgca acccaaactc 240
247 gagctcaagc caggtgagct taagccactg agcaaggaag atttgggcct gcacgcctac 300
248 aggtgtgagg actgtggcaa gtgcaaatgt aaggagtgc cctacccaag gcctctgcca 360
249 tcagactgga tctgcgacaa gcagtgcctt tgctcggccc agaactgat tgactatggg 420
250 acttgtgtat gctgtgtgaa aggtctcttc tatcactgtt ctaatgatga tgaggacaac 480
251 tgtgtctgaca acccatgttc ttgcagccag tctcactgtt gtacacgatg gtcagccatg 540
252 ggtgtcatgt cctctttttt gccttgttta tgggtgttacc ttccagccaa gggttgcctt 600
253 aaattgtgcc aggggtgtta tgaccgggtt aacaggcctg gttgccgctg taaaaactca 660
254 aacacagttt gctgcaaagt tcccactgtc ccccttagga actttgaaaa accaaccatg 720
255 catcattaat caggaatatt acagtaatga ggattttttc tttctttttt taatacacat 780
256 atgcaaccaa ctaaacagtt ataactttgg cactgttaat agaaagttgg gatagtcttt 840
257 gctgtttgag gtgaaatgct ttttgtccat gtgccgtttt aactgatatg cttgttagaa 900
258 ctacagctaat ggagctcaaa gtatgagata cagaacttgg tgacctatgt attgcataag 960
259 ctaaagcaac acagacactc ctaggcaaaag tttttgtttg tgaatagtac ttgcaaaact 1020
260 tgtaaatagg cagatgactt ttttccattg ttttctccag agagaatgtg ctatatattt 1080
261 gtatatataa taatatattg aactgtgaaa aacaagtggg gccatactac atggcacaga 1140
262 cacaaaatat tatactaata tgttgtacat tcggaagaat gtgaatcaat cagtatgttt 1200
263 ttagattgta ttttgccctt cagaaagcct ttattgtaag actctgattt ccctttggac 1260
264 ttcatgtata ttgtacagtt acagtaaaat tcaaccttta ttttctaatt ttttcaacat 1320
265 attgtttagt gtaaagaata tttatttgaa gttttattat tttataaaaa agaataattt 1380
266 ttttaagagg catcttacia attttgcccc ttttatgagg atgtgatagt tgctgcaaat 1440
267 gagggggttac agatgcatat gtccaatata aaatagaaaa tatattaacg tttgaaatta 1500
268 aaaaaaaaa 1508
270 <210> SEQ ID NO: 11
271 <211> LENGTH: 389
```

VERIFICATION SUMMARY

DATE: 05/23/2002

PATENT APPLICATION: US/09/936,133A

TIME: 16:05:18

Input Set : A:\Sch1821.app

Output Set: N:\CRF3\05232002\I936133A.raw